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MONTHLY REPORT

1 August - 31 August 1956

PLANT ENGINEERING BRANCH
ENGINEERING DIVISION

Effective 27 August 1956 the Plant Engineering Branch functions were separated to provide separate maintenance and installation facilities. As a result the new branch formed has been titled the Installation and Maintenance Branch and [] has been selected as its head.

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The name of the branch which is responsible for the engineering functions has been selected to be Systems Engineering Branch. The undersigned is the chief of this branch.

Further description of the functions of each branch will be prepared and disseminated shortly.

1. PROJECTS AND ACTIVITIES

E-5002 MEDIUM POWER TRANSMITTER

At the beginning of this month the manufacturers representative of the [] visited Headquarters and noted our difficulties encountered with their GPT-750 transmitter. About the middle of the month he revisited Headquarters and commented on the progress the factory has made modifying their transmitters to make them more reliable and also meet our overall specifications. The station engineer [] will visit Headquarters to discuss these modifications.

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25X1A6B

Since so many difficulties have been encountered trying to keep this transmitter in operation in order that an evaluation could be made, an effort will be made to return it to the manufacturer for rework at no cost to the government.

E-5009 PORTABLE RECORDING STUDIO

[] has advised that all material necessary for this project has arrived. They also have completed work on the rack that is to go in the equipment trunk. Estimated completion date for the trunk is approximately 28 September.

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E-5014 VHF MUX STUDY

No change in the status of gathering information concerning other types of military link equipment.

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SEE BACKSLIP
NOTE - 0703

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E-5015 VFO STUDY

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Because of the difference in circuitry of the exciter stages of transmitters type 231-D and 16-F, the modifications suggested by the consulting firm of [] are not applicable for transmitter type 16-F. This discrepancy will be reviewed by [] and will result in a separate modification for transmitter type 16-F. VFO operation of transmitter type 231-D will also be reviewed.

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Included in the study of the RT-4 transmitter and its repackaging to be made by [] will be the modifications suggested for VFO operation.

E-5017 VOICE SECRECY PROGRAM - AFSAY D-801

The seven reported troubles were cleared on the AFSAY - D-801 Voice Secrecy equipments.

One AFSAY - D-801 was installed in the office of Chief, Supplemental Programs Division making a total of seven units installed in the Agency.

The AFSAY - D-801 unit which was installed in the Office of the Comptroller was moved from its original position adjacent to his desk to his secretary's office. This was done to facilitate maintenance since it was not always possible to enter the Comptrollers Office.

E-5020 MODIFICATION WORK ORDERS

No modification work orders were issued during this period. There is one in preparation on the CP-4 and this will be issued during the next report period.

E-5021 DF DEVELOPMENT AND REPLACEMENT PROGRAM

No change in status.

E-5029 FREQUENCY INSTABILITY OF MICROWAVE - AFC UNITS

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[] has been contacted and instructed to explore the feasibility of setting up two more production lines to correct the frequency instability of the equipment located at our overseas installation. The tentative schedule for setting up by Motorola is November 1956 and February 1957.

E-5030 GENERAL ANTENNA STUDY

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The report by [] on the ^{CUBICAL} Cubicle Quad Antenna has been edited by the Radio Systems Section and sent to the Operations and Training Division for their study and concurrence.

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E-5031 ENGINE-GENERATOR STANDARDIZATION PROGRAM

No change in status.

E-5032 ENGINE-GENERATOR SPARE PARTS PROGRAM

No change in status.

E-5033 PORTABLE PACK PHONE STUDY TO ESTABLISH COMMO STANDARD

No change in status.

E-5036 STUDY TO ESTABLISH MAINTENANCE PROCEDURES FOR AIR CONDITIONING
UNITS IN THE FIELD

No change in status.

E-5037 TECHNICAL BULLETINS

No technical bulletins were issued during this reporting period.

E-5038 MOBILE ALTERNATE RELAY AND COMMAND POST

Verbal word has been received from the Operations and Training Division that this project is not required and is to be cancelled. A written confirmation is to follow.

E-5041 RT-4 TRANSMITTER REPACKAGING

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This project has been turned over to the Due to another high priority project they had with this Agency, it was temporarily set aside during part of the period covered by this report. Some progress was made concerning the modifications to the transmitter to make it more reliable.

E-5042 SPECIFICATIONS FOR VHF MOBILE EQUIPMENT FOR WAREHOUSE STOCK

This project has been retitled VHF Mobile Equipment for Warehouse Stock. No change in status.

E-5043 RADIO INTERFERENCE STUDY

Since the project engineer working on this study has been transferred TDY during the last 30 days, little work was done during this reporting period.

E-5044 CO-AXIAL TRANSMISSION LINE PATCH PANEL

The purpose of this project is to develop a system of transmitter antenna switching through the use of co-axial switching panel.

This project is in the information gathering stage and no definite conclusions have been made at this time. The manufacturers representative of

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25X1A5A1 the [] has visited Headquarters twice on this project. Request for information on other manufactured items used in this system is being made. A query to [] via the Research and Development Branch is being compiled concerning their price and delivery estimate on fabricating the panel and fittings. The Signal Corps is being investigated as a possible source of low cost quick-disconnect plugs and connectors. 25X1A5A1 The Research and Development Laboratory is evaluating a line coupling transformer built by [] and this report which is a necessary facet should be available next month. All in all, this project is being actively pursued and certain decisions leading to its conclusion should be available by the next report period.

E-5060 STRATEGIC RESERVE PROGRAM (STOCKPILE)

25X1A [] area personnel surveyed the area around [] for possible transmitter and receiver station sites. Two possible sites [] were mentioned. 25X1A6A 25X1A6A

The 13 position station bill of materials still is held in abeyance until firm requirements are stated.

E-5090 TINY TOT PROGRAM

One Tiny Tot was removed from Room 222, [] and installed in Room 548, 1717 "H" Street. 25X1

25X1A One Tiny Tot T. D. was shipped [].

25X1A5A1 The Tiny Tot keyboard redesigning has been completed, and contracts have been let to [] for the manufacture of the new parts.

E-5108 8-ST CIRCUS I

This project will no longer be carried since we are not directly engaged in this activity.

E-5170 6-ST MOBILE

25X1A6A As has been reported in last month's report, both 6-ST, number two and the MBU trailer have been packed and are awaiting disposition instructions from the ~~Office of Policy and Planning~~. 6-ST, number one is being readied for shipment [] and it is expected that this unit will have been completed by the end of September.

E-5201 SECURITY OFFICE MOBILE TRANSCEIVER MAINTENANCE

No change in status.

E-5208 ENGINEERING AND INSTALLATION OF SO-8 RADAR (SPD)

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All equipment necessary for this installation has been transferred to [] on a Memorandum Receipt. It is our understanding that this equipment will

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remain until arrangements have been made for the purchase of a suitable tower at which time the installation of the radar will be performed by the Installation and Maintenance Branch.

E-5220 TELETYPE AND CRYPTOGRAPHIC MAINTENANCE

Preventative maintenance of teletype and associated equipment was performed on six hundred fifty-five units as per schedule.

Two hundred twenty-four troubles were cleared as reported to the Wire Systems Section.

Eleven teletype parts requisitions (173) items were processed to the field.

The following teletype equipment was returned to the Wire Systems Section shop for overhaul and reconditioning:

- A. 6 M-15 printing units
- B. 4 M-14 printing units
- C. 2 M-28 printing units

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E-5230 ☐

No change in status.

E-5250 WASHINGTON DISASTER PLAN

No change in status.

E-5250.01 WASHINGTON DISASTER PLAN - FIXED RADIO

Regular maintenance visits were made to all microwave installations. Minor defects noted were repaired and all equipment tested.

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STATION ☐

No change in status.

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STATION ☐

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The ☐ field team has completed their inspection of this station and have returned ☐

25X1

☐ TOWER MAINTENANCE

All information concerning the towers at stations ☐ have been sent to ☐. He is the contact to the ☐ of ☐ Pennsylvania. It is desirable that this maintenance program be included with the present contact for the maintenance of microwave towers at stations ☐.

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TRANSFERS OF EQUIPMENT AT STATIONS [REDACTED]

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The shipping documents were received by Materiel Support Branch for the transfer of accountability of the equipment at the above stations. The documents were given to [REDACTED] for the proper signatures and are then to be returned to this office.

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[REDACTED] SERVICES CONTRACT

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A contract is being negotiated with [REDACTED] for \$5,000 per year. This contract will include repairing and re-aligning of equipment, emergency requisitions consulting services and training. It is expected that this contract will be signed by the end of September. A more detailed description of the contract will be forwarded in next month's monthly report.

E-5251 DISASTER REGISTRATION POINT COMMUNICATION FACILITY

Procurement has been initiated for a VHF cardioid antenna to supplement the existing voice mobile relay communications system which was placed in service several days prior to the disaster exercise. At present the mobile relay antenna system consists of a triple skirt coaxial antenna receiving and transmitting simultaneously on 165 MC and 172 MC respectively. With the installation of a cardioid receiving antenna on the tower [REDACTED] the quality of the received signal from the mobile vehicles should improve and provide stable voice communications from the "shadow" areas which now exist in portions of downtown Washington.

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An additional receiver was also installed in the attic of East Building tuned to the mobile transmit frequency so that in the event the transmitted mobile signal does not "trigger off" the relay receiver located at [REDACTED] the signal is received by the auxiliary receiver and piped back to the control point. (Room 2 or Room 1407, "I" Building.)

It is also planned to install a remote control unit in the Administration Building to permit the Director's Staff to call the Director's car when required.

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E-5310 [REDACTED] BASE STATION

Routine Engineering support.

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E-5320 [REDACTED] BASE STATION

Routine Engineering support.

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E-5341 [REDACTED]

Routine Engineering support.

25X1

E-5342 MICROWAVE SYSTEM FOR [REDACTED] BASE STATION

Tami reported that the VHF/MUX installation is working and that they have experienced little outages. They are not convinced that the system is the answer to their problem. We do not however intend to take further action at this time.

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25X1A E-5360 [] BASE STATION

Routine Engineering support.

25X1A E-5382 [] BASE RADIO STATION

No change in status.

25X1A E-5411 []

Routine Engineering support.

25X1A E-5441 [] BASE RADIO STATION

Routine Engineering support.

25X1A6B E-5445 AIR CONDITION SYSTEM - []

The air conditioning units are not compatible with station power. As a result, booster transformers will have to be procured and installed.

25X1A6B E-5446 POWER STUDY - []

25X1A5A1 The requisition for the 100 KW [] diesel generators has been initiated. A delivery date to the field of 1 December is anticipated. However, the actual delivery date will not be known until a firm commitment is received from []

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DRAFTING

The Drafting Section has completed approximately thirty-five pencil drawings of sizes varying from 8 $\frac{1}{2}$ " x 11", to 24" x 36". Approximately forty positive-negative reproductions and thirty-five positive reproductions have been completed on the trans-copy reproducing machine during this period. ((Our Section work load is still very light, considering the man-))) power and facilities we have available.

An inspection was made of a conference room at "K" Building for the installation of a public address system. The equipment is on hand to complete the project, however, the requesting official is on leave and it is suggested that this project be held up until his return.

MISCELLANEOUS

25X1A9A On 23 August 1956, [] visited [] in 25X1A5A1 Chicago, Ill. to expedite the procurement and delivery of 72 each XD-91 transmitter distributors. Previous discussions with the [] 25X1A5A1 Washington representative indicated that it would require a minimum of seven months to make delivery. As a possible means of expediting delivery it was proposed that these units be shipped in kit form as a set of parts,

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or completely assembled minus the parts we would normally remove when modifying the units for Tiny Tot operation. The latter method was chosen and [] has agreed to go into immediate production with delivery scheduled for sometime in December 1956.]

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On 24 August 1956, [] visited [] to assist [] of the Contracts Branch, Office of Logistics in negotiating an open ended services contract. This contract is to be used to cover the purchase of parts and supplies, engineering studies, training of personnel, re-alignment of equipment and various other services pertaining to [] equipment. No difficulties were encountered and it was estimated that the contract would be in effect in approximately three weeks.

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25X1A6A Engineering Services - [] (See attached memorandum)

2. ADMINISTRATIVE

TDY

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RESIGNATIONS

(Not Applicable)

TRANSFERS

(Not Applicable)

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OTHER

On-The-Job Training

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[REDACTED] - Slot #406 - 80 Hours



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Chief, Plant Engineering Branch

ATTACHMENTS:

Memorandum to File, Subject: Contract [REDACTED]
Antenna Selector Switch, TAS-240, dated
17 August 1956

25X1

Memorandum for the Record, Subject: Discussion
with [REDACTED] on Communications
Link between [REDACTED]
dated 15 August 1956

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Memorandum from OC-E to OC-O&T, Subject: Engineering
Service Performed [REDACTED]

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